AUTODOC CLUB

How to change front suspension strut on **Mercedes W168** – replacement guide

VIDEO TUTORIAL

Important!

This replacement procedure can be used for:
MERCEDES-BENZ A-Class (W168) A 140 (168.031, 168.131), MERCEDES-BENZ A-Class (W168) A 160 (168.033, 168.133), MERCEDES-BENZ A-Class (W168) A 160 CDI (168.007), MERCEDES-BENZ A-Class (W168) A 170 CDI (168.008), MERCEDES-BENZ A-Class (W168) A 190 (168.032, 168.132), MERCEDES-BENZ A-Class (W168) A 160 CDI (168.006), MERCEDES-BENZ A-Class (W168) A 210 (168.035, 168.135)

The steps may slightly vary depending on the car design.

REPLACEMENT: SUSPENSION STRUT – MERCEDES W168. TOOLS YOU MIGHT NEED:

- Wire brush
- WD-40 spray
- Brake cleaner
- Copper grease
- Torque wrench
- Combination spanner #18
- Combination spanner #21
- Drive socket # E12
- Drive socket # 16
- Drive socket # 18
- Drive socket # 21
- HEX bit No.H6
- Wheel impact socket #17
- Ratchet wrench
- Round-nose pliers
- Hydraulic strut spring compressor
- Hydraulic transmission jack
- Fender cover
- Wheel chock

BUY TOOLS

Replacement: suspension strut – Mercedes W168. AUTODOC recommends:

- Both shock struts of the front suspension should be replaced simultaneously.
- The replacement procedure is identical for the left and right shock struts of the front suspension.
- Please note: all work on the car – Mercedes W168 – should be done with the engine switched off.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1 Open the bonnet.

2 Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.

3 Clean the fasteners of the shock strut upper mount. Use a wire brush. Use WD-40 spray.

4 Loosen the upper fasteners of the suspension strut. Use a drive socket #E12. Use a ratchet wrench.

5 Secure the wheels with chocks.

6 Loosen the wheel mounting bolts. Use wheel impact socket #17.

7 Raise the front of the car and secure on supports.

8 Unscrew the wheel bolts.

AUTODOC recommends:

- Important! Hold the wheel while unscrewing the fastening bolts. Mercedes W168

9 Remove the wheel.

10 Clean the stabiliser link fasteners. Use a wire brush. Use WD-40 spray.

11 Unscrew the fastener connecting the stabilizer link to the shock strut. Use a drive socket #16. Use a ratchet wrench.

12 Remove the stabilizer rod.

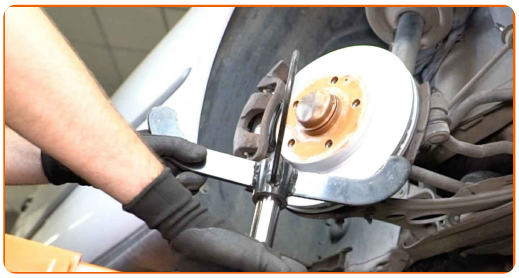
13 Disconnect the ABS sensor wiring.

14 Disconnect the brake pad wear sensor wire.

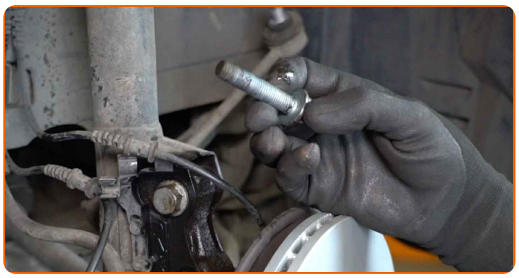
15 Clean the fasteners connecting the shock strut to the steering knuckle. Use a wire brush. Use WD-40 spray.

16 Unscrew the fasteners connecting the suspension strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a ratchet wrench.

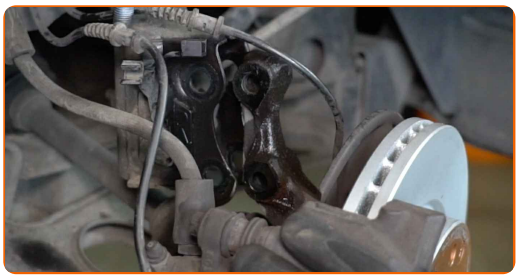
17 Prop up the steering knuckle. Use a hydraulic transmission jack.



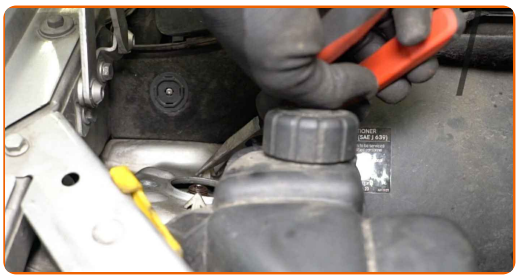
18 Remove the fastening bolts.



19 Disconnect the steering knuckle from the shock absorber strut.



20 Release the plastic strut mount retainers. Use round-nose pliers.



21 Remove the suspension strut.

22 Set the shock absorber strut on the spring compressor tool.

Replacement: suspension strut – Mercedes W168. Professionals recommend:

- Note that when using a spring compressor, spring coils need to be securely gripped, compressing the spring on the opposite sides.
- Ensure the correct position of the spring in the retainer.
- Make sure that the spring coils tightly entered the lock handles.

23 Compress the spring.

24 Treat the shock strut rod. Use a wire brush. Use WD-40 spray.

25 Remove the strut piston rod nut. Use a combination spanner #21. Use HEX No.H6. Use a ratchet wrench.

26 Remove the shock absorber mount, boot and bump stop.

AUTODOC recommends:

- Replacement: suspension strut – Mercedes W168. Carefully inspect the mount, the boot, and the bump stop of the shock absorber. Replace if necessary.

27 Release the coil spring.

28 Remove the spring.

29 Remove the old shock absorber from the hydraulic coil spring compressor.

30 Install the new shock absorber on the hydraulic coil spring compressor.

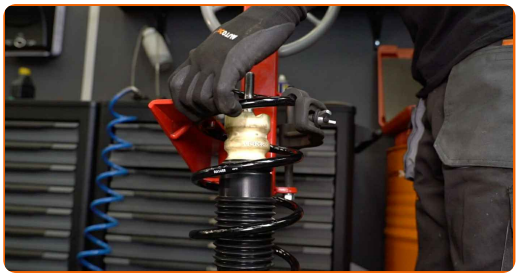
Replacement: suspension strut – Mercedes W168. Tip from AUTODOC:

- Before installing a new shock absorber you should pump it manually 3-5 times.

31 Install the dust sleeve and the bump stop on the new shock absorber.

32 Install the spring on the shock absorber.

33 Compress the spring.



34 Install the upper strut mount and the strut mount bearing.

35 Tighten the shock strut piston rod nut. Use a drive socket #21. Use HEX No.H6. Use a torque wrench. Tighten it to 60 Nm torque.

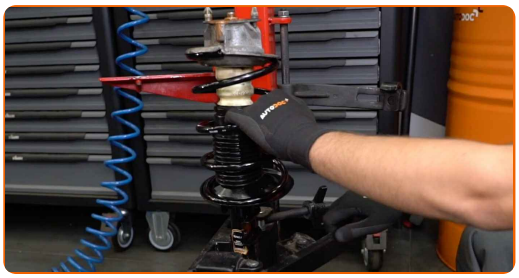
Replacement: suspension strut – Mercedes W168. AUTODOC recommends:

- Check to make sure the spring is positioned correctly. Avoid its misalignment.

36 Decompress the spring.

37 Treat the shock strut rod. Use copper grease.

38 Remove the assembled shock strut.



39 Clean the mounting seats of the shock strut. Use a wire brush. Use WD-40 spray.

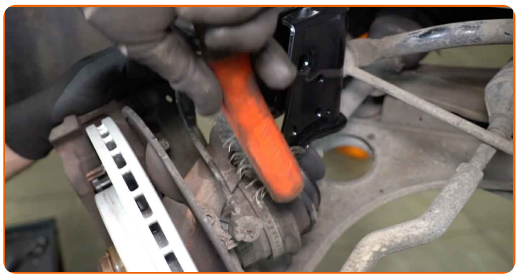
40 Install the shock strut into the wheel arch.

41 Secure the upper fasteners of the shock strut. Do not tighten it.

AUTODOC recommends:

- Important! Hold the suspension strut while screwing in the fastening bolts. Mercedes W168

42 Clean the mounting seats of the shock strut. Use a wire brush. Use WD-40 spray.



43 Fix the shock absorber strut on the steering knuckle.

44 Install the fastening bolts.

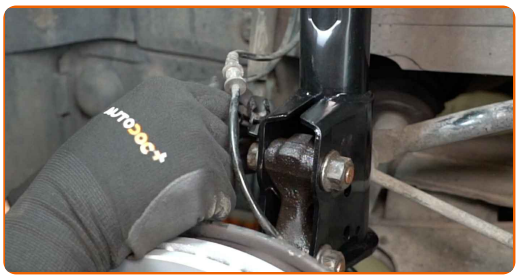
45 Remove the support from under the steering knuckle.

Replacement: suspension strut – Mercedes W168. AUTODOC recommends:

- Lower the hydraulic transmission jack smoothly, without jerks, to avoid damaging assemblies and mechanisms.

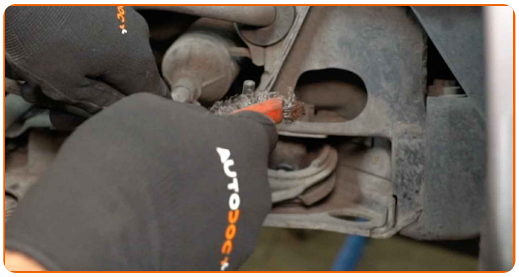
46 Tighten the lower fasteners connecting the shock strut to the steering knuckle. Use a combination spanner #18. Use a drive socket #18. Use a torque wrench. Tighten it to 100 Nm torque.

47 Connect the ABS sensor wiring.



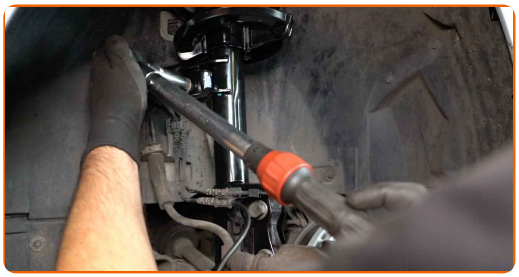
48 Connect the brake pad wear sensor wire.

49 Clean the mounting seats of the stabiliser link. Use a wire brush. Use WD-40 spray.



50 Install the transverse stabilizer link.

51 Tighten the fastener connecting the stabilizer link to the shock strut. Use a drive socket #16. Use a torque wrench. Tighten it to 55 Nm torque.



52 Treat the shock strut fasteners. Use copper grease.

53 Treat the surface where the brake disc contacts the wheel rim. Use copper grease.

54 Clean the brake disk surface. Use a brake cleaner.

AUTODOC recommends:

- Replacement: suspension strut – Mercedes W168. After applying the spray, wait a few minutes.

55 Install the wheel.

AUTODOC recommends:

- Warning! To avoid injury, hold the wheel while screwing in the fastening bolts on the car. Mercedes W168

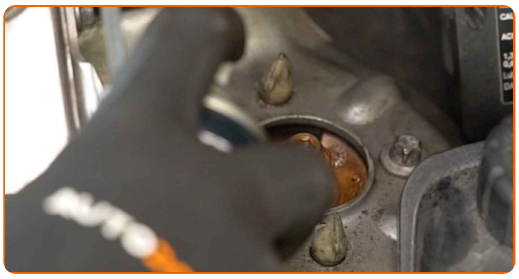
56 Screw in the wheel bolts. Use wheel impact socket #17.

57 Lower the car and working in a cross order, tighten the wheel bolts. Use wheel impact socket #17. Use a torque wrench. Tighten it to 110 Nm torque.

58 Remove the jacks and chocks.

59 Tighten the upper fasteners of the shock strut. Use a drive socket #E12. Use a torque wrench. Tighten it to 32 Nm torque.

60 Treat the shock strut fasteners. Use copper grease.



61 Remove the fender protection cover.

62 Close the hood.

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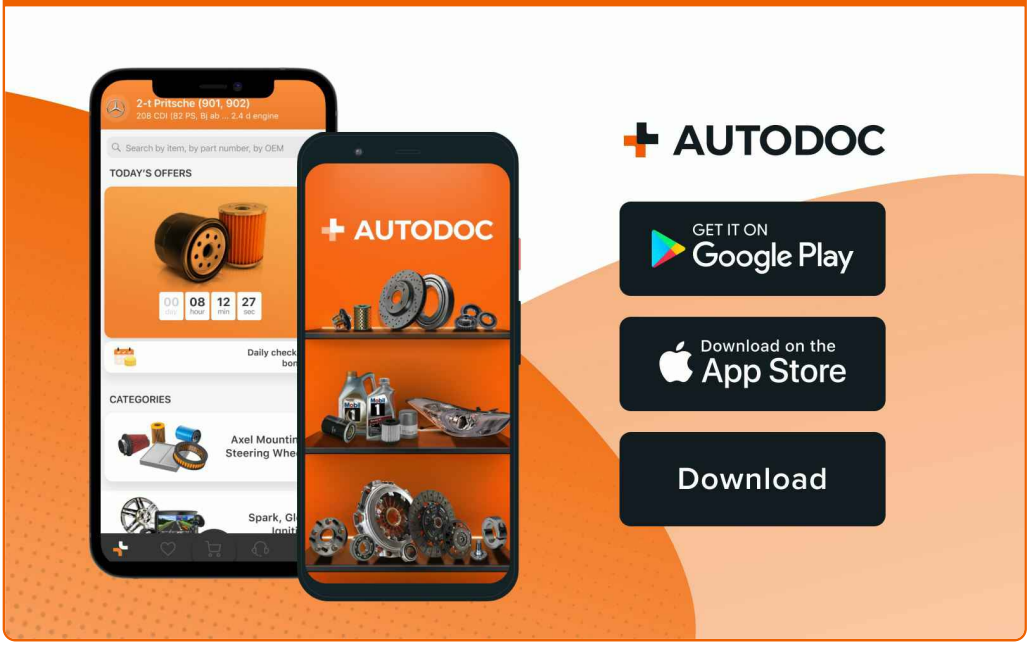

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